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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,536	10/12/2001	Jason T. Griffin	1578.025	2444

44208 7590 02/15/2007
DOCKET CLERK
PO BOX 12608
DALLAS, TX 75225

EXAMINER

LAO, LUN YI

ART UNIT	PAPER NUMBER
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2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/976,536

Applicant(s)

GRIFFIN ET AL.

Examiner

LUN-YI LAO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 44,45 and 47-103 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 44,45 and 47-103 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225

USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 44-45 and 47-103 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-47 of U.S. Patent No. 6,452,588 (hereinafter Pat-588) in view of Lieberman et al(6,385,463)

By comparing the independent claim with independent claims 1, 11, 17, 23-24 and 42 of Pat-588; we can see that the claims are substantially similar. For example claim 1 of Pat-588 and claim 44 of the present application recite a hand-held device that includes a QWERTY keyboard and a display. The positive and negative angles, and the oblong shaped keys in claim 1 of Pat-588 are recited in claims 56 and 57, which makes claim 1 of Pat-588 substantially similar to claim 60 of the present application, which is dependent from claims 44 and 56.

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None of the claims in Pat-588 recite having microphone and a speaker wherein the microphone is mounted below the display within the front surface of the device housing and the speaker is mounted above the display within the front surface of the device housing. None of the claims in Pat-588 teach when used in the voice mode, a communication device is oriented with the side surface positioned at a top of the device, when use in data mode, is oriented with the side surface positioned at a top of the device.

However, Liberman et al teach a handheld dual-mode mobile (cellular phone having voice and data communication) that includes a keyboard (126, QWERTY), speaker (118) and microphone (116, 154) and wherein the microphone is mounted below the display (120) within the front surface of the device housing and the speaker(118) is mounted above the display(120) within the front surface of the device housing (figures 1, 3; column 3, lines 5-44 and column 5, lines 15-57). Liberman et al teach when used in the voice mode(first mode), a communication device is oriented with the side surface positioned at a top of the device, when use in data mode(second mode), is oriented with the side surface positioned at a top of the device(the speaker(118), the microphone(116, 154), the display(120) and the keyboard(126)) aligned along a vertical line(see figure 3).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to realize that the invention described in claim 1 of Patent No. 6,452,588 can be modified to include a speaker and microphone (using Liberman's teaching) to the device so that the handheld device of claim 1 of Pat-588

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can be used as a portable phone and therefore, increasing the versatilities of the device. Similarly with respect the other claims of the present invention.

3. Claims 44-45 and 47-103 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 6,611,254(Griffin et al) in view of Lieberman et al(6,385,463).

By comparing the independent claim with independent claims 1, 11, 17, 23-24 and 42 of Patent No. 6,611,254, they both teach a dual mode mobile(cellular phone, claim 7 and e-mail, claim 1) communication device comprising a voice communication interface(cellular phone, claim 7), a data communication interface having a display and the QWERTY keyboard(see claim 1).

None of the claims in Patent No. 6,611,254 recite having microphone and a speaker wherein the microphone is mounted below the display within the front surface of the device housing and the speaker is mounted above the display within the front surface of the device housing. None of the claims in Pat-254 teach when used in the voice mode, a communication device is oriented with the side surface positioned at a top of the device, when use in data mode, is oriented with the side surface positioned at a top of the device.

However, Liberman et al teach a handheld dual-mode mobile (cellular phone having voice and data communication) that includes a keyboard (126, QWERTY), speaker (118) and microphone (116, 154) and wherein the microphone is mounted below the display (120) within the front surface of the device housing and the

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speaker(118) is mounted above the display(120) within the front surface of the device housing (figures 1, 3; column 3, lines 5-44 and column 5, lines 15-57). Liberman et al teach when used in the voice mode(first mode), a communication device is oriented with the side surface positioned at a top of the device, when use in data mode(second mode), is oriented with the side surface positioned at a top of the device(the speaker(118), the microphone(116, 154), the display(120) and the keyboard(126)) aligned along a vertical line(see figure 3).

However, Liberman et al teach a handheld dual-mode mobile (cellular phone having voice and data communication) that includes a keyboard (126, QWERTY), speaker (118) and microphone (116, 154) and wherein the microphone is mounted below the display (120) within the front surface of the device housing and the speaker(118) is mounted above the display(120) within the front surface of the device housing (figures 1, 3; column 3, lines 5-44 and column 5, lines 15-57). Liberman et al teach when used in the voice mode(first mode), a communication device is oriented with the side surface positioned at a top of the device, when use in data mode(second mode), is oriented with the side surface positioned at a top of the device(the speaker(118), the microphone(116, 154), the display(120) and the keyboard(126)) aligned along a vertical line(see figure 3).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to realize that the invention described in claim 1 of Patent No. 6,611,254 can be modified to include a speaker and microphone (using Liberman's teaching) to the device so that the handheld device of claim 1 of Patent

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No. 6,611,254 can be used as a portable phone and therefore, increasing the versatilities of the device. Similarly with respect the other claims of the present invention.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 44-45, 47-52, 56-59, 64, 68-69, 75-86 and 91-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimoto(6,046,732) in view of Liberman et al and Hughes et al(WO 96/04618)

As to independent claim 44, Nishimoto teaches a dual mode mobile communication device (mobile telephone and character input mode, see column 6, lines 24-28) that includes a single, integrated device housing (figure1) that does not include two or more hinged housing sections, a voice communication interface configured in the device housing for operating the device in a voice mode of operation, the voice communication interface comprising a speaker and a microphone (it is

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inherent that the mobile phone has a speaker and a microphone (see column 5, lines 1-15 and column 3, lines 57-62). Nishimoto teaches a data communication interface configured in the device housing for operating the device in a data mode of operation, the data communication interface comprising the display QWERTY keyboard, the QWERTY keyboard being positioned within a front surface of the single, integrated device housing (see figures 1, 3-4 and column 5, lines 16-42). Nishimoto teaches a wireless transceiver for sending and receiving voice communications when in the voice mode of operation and data communications when in the data mode of operation (it is inherent that the mobile phone has a wireless transceiver for sending and receiving voice communication)(see figures 1-2; column 4, lines 66-68; column 5, lines 1-15 and column 6, lines 24-24-28). Nishimoto teaches the communication device(data mode) is oriented with the side surface positioned at a top of the device(same as applicants' communication device) when used in data mode(character input mode)(see figures 1, 3-4; column 6, lines 24-68 and column 7, lines 1-44)

Nishimoto does not teach that the speaker is positioned at the top of the device housing, the display is positioned below the speaker, and the QWERTY keyboard and the microphone are positioned below the display. Nishimoto does not teach when used in the voice mode, a communication device is oriented with the side surface positioned at a top of the device.

Liberman et al teach a handheld dual-mode mobile (cellular phone having voice and data communication) that includes a keyboard (126, QWERTY), speaker (118) and microphone (116, 154) and wherein the microphone is mounted below the display

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(120) within the front surface of the device housing and the speaker(118) is mounted above the display(120) within the front surface of the device housing (figures 1, 3; column 3, lines 5-44 and column 5, lines 15-57). Liberman et al teach when used in the voice mode(first mode), a communication device is oriented with the side surface positioned at a top of the device, when use in data mode(second mode), is oriented with the side surface positioned at a top of the device(the speaker(118), the microphone(116, 154), the display(120) and the keyboard(126)) aligned along a vertical line(see figure 3). It would have been obvious to have modified Nishimoto with the teaching of Liberman et al, since Liberman et al teach the location and the shape of a microphone could be changed(see column 5, lines 46-57).

Hughes shows a dual mode mobile communication (cellular phone and data communication) that includes a keyboard (14, QWERTY), microphone (404) are positioned at the top of the device housing; speaker (402) is positioned at the top of the device housing; and a display(12) are integrated into a single piece(see figures 13-15; abstract; page 3, lines 18-37; page 4, lines 1-21; page 20, lines 3-37 and page 21, lines 1-9). Hughes teaches the mobile communication device is oriented with the side surface positioned at a top of the device(vertical position)(see figure 13). It would have been obvious to have modified Nishimoto with the teaching of Hughes, so as to provide a mobile communication device could be easy to operate and reduce the cost of the mobile communication device by using hard keys instead of soft keys.

As to claims 45 and 84 as can be seen in figure 1; the device housing has a back surface and have generally rectangular shape.

As to claim 47, as can be seen in figure 1; the mobile phone includes a plurality of side surfaces connecting the front surface to the back surface.

As to claims 48-49, as mentioned above, Hughes teaches the speaker(402) and the microphone(404) are located on the front surface and the bottom side surface respectively, and the microphone(404) is positioned below the QWERTY keyboard(14)(see figure 13).

As to claims 50-51, Nishimoto as modified teaches the keyboard(14), the microphone(404), the speaker(402) and the display(12) are all aligned along a vertical reference line(see Nishimoto's figure 1).

As to claim 52, Nishimoto as modified teaches the display of the device as shown in figure 6 is rectangular.

As to claim 56, Nishimoto as modified by Hughes et al teach the QWERTY keyboard having a plurality of letter keys, wherein approximately half of the letter keys are positioned on a left hand side of the device housing and approximately half of the letter keys are positioned on a right hand side of the device housing(see Nishimoto's figures 1, 3, 4 and Hushes's figure 13).

As to claims 57-59, the claim is broad enough because the shape of the keys are not claimed; rather the broad interpretation of the claim is that the location of keys having a negative angle and positive angle with respect the vertical reference line. Such limitation is fairly taught by figure 1 of Nishimoto reference and figure 13 of Hughes). Also, the location or shape of the keys would be changed since it has been generally recognized as being within the level of ordinary skill in the art.

As to claim 64, Nishimoto as modified teaches the mobile communication device comprising the letter keys are organized into three rows of keys, wherein each key in each row of keys is horizontally aligned across a front surface of the device housing with the other keys in the row of keys(see Nishimoto's figures 1, 3-4 and Hughes's figure 13).

As claim 68, Nishimoto as modified shows that keys are symmetrically shaped(see Nishimoto's figures 1, 3-4 and Hughes's figure 13).

As to claim 69, it would have been obvious to have a square shaped keys since the keys would be changed since it has been generally recognized as being within the level of ordinary skill in the art and it would not effect the function of the keys.

As to claims 75-77, Nishimoto as modified teaches a mobile communication device comprising a microprocessor, memory to be connected to the microphone, the display, the speaker and the keyboard(see Nishimoto's figure 2 and Hughes's figures 4, 13 and page 9, lines 11-36).

As to claim 78, it is inherent that Nishimoto's mobile communication device having a pair of transmitter/receivers, a first transmitter/receiver for sending and receiving voice communications(telephone mode) and a second transmitter/receiver for sending and receiving data communications(E-mail)(see figures 1-2; column 6, lines 24-27 and column 8, lines 13-34).

As to claim 79, Nishimoto teaches an antenna (11) to act as a transmitter and receiver(see figure 2; column 4, lines 67-68 and column 5, lines 1-15).

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As to claim 80, Nishimoto as modified teaches using RF communication (radio)(see figure 2; column 4, lines 67-68 and column 5, lines 1-15).

As to claim 81, Nishimoto as modified teach wireless voice network and wireless data network (inherent in a mobile phone)(see figures 1-2; column 6, lines 24-27 and column 8, lines 13-34).

As to claim 82, the choice of GSM voice network and data network GPRS is simply well known in the art and would be inherent in mobile phones.

As to claim 83, Nishimoto teach storing user information in a memory(14, 15)(see figure 2; column 4, lines 67-68 and column 5, lines 1-15).

As to claim 85, Hughes shows that the speaker(402), the display(12), the keyboard(14) and the microphone(404) are mounted within the front surface of the device housing (figure 13).

As to claim 86, Hughes teaches the QWERTY keyboard is symmetrically positioned from two of the side surfaces in the front surface(see figure 13).

As to claims 91-93, as can be seen in figures 1 and 2, it is inherent that the housing is formed using two housing (bottom and top in figure 1), and wherein the two housing sections include a plurality of fasteners (where the two sections are connected), and a single circuit board (see figures 1-2).

As to claims 94-97, these claims simply shows that the device can be used as personal information manger that includes calendar, data items, appointment, etc. These limitations are described in both Nishimoto and Hughes. For example, Hughes shows that the device can by used as a personal purchase or finance manager or

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PCMIA, which used to enter data, which fairly reads on the claimed limitations (see figures 13-16; abstract; page 3, lines 18-37; page 4, lines 1-21 and page 25, lines 18-27).

6. Claims 53-55 and 60-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimoto in view of Liberman et al, Hughes et al(WO 96/04618) and Lookofsky(5,416,730).

As to claims 53-55 and 60-63, Nishimoto as modified fail to point out the QWERTY keyboard having a NUM Lock, a CAP lock and function keys

Lookofsky teaches a QWERTY keyboard arrangement having a CAP lock, and function keys(see figures 5-6 and column 6, lines 52-58) and keys are oblong, oval or rectangular shaped(see column 6, lines 19-21). It would have been obvious to have modified Nishimoto as modified with the teaching of Lookofsky, since Nishimoto as modified and Lookofsky both teach a keyboard is a QWERTY keyboard and it would have been well known that the QWERTY keyboard having a NUM lock, a CAP lock and functions keys, so as to provide a dual function keys and the shape of a key could be changed since changing the shape of a key would not effect the function of a key.

7. Claims 71 and 98-103 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimoto in view of Liberman et al, Hughes and Aldridge et al. (US patent NO. 6,047,047; hereinafter referred to as Aldridge).

As can be seen above, Nishimoto teaches all the limitation of claim 71 except the citation of serial port. However, Aldridge (figure 1) teaches a handheld device (30) which includes a serial port (30) (col. 4, lines 28-42).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a serial port to Nishimoto's device so as to facilitate the communication to other devices and therefore, increase the versatilities of the device.

As to claims 98-103, the claims disclose serial port that can connect the device to a host compute, and to load encryption key from the host computer. Examiner takes an official notice that these limitations re well known in the art of cellular phone which can be connected to display host via serial port, and wherein encrypted key can be loaded to the device.

8. Claims 65-67, 70, 72-74 and 87-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimoto in view of Liberman et al, Hughes et al and Grant (US patent NO. 5,500,643 provided by the Applicant).

As to claims 65-67, as can be seen above, Nishimoto and Hughes teach all the limitations of claims 65-67 except the citation of having the keys configured along an arc across the front surface of the device housing.

However, Grant (FIGS. 1-2) shows an input device (10) wherein the keys are configured along an arc across the front surface, and shaped and convex or concave. Therefor, it would have been obvious to a person of ordinary skill in the art at the time

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the invention was made to include the teaching of Grant having the keys configured in a arc shape to be included in Nishimoto's device so as motivated by Grant, to eliminate ulnar-deviation of the actuating hand (abstract).

As to claim 70, as can be seen in figure 1, of Grant's device shows that the keys having circular shape.

As to claims 72-73, as can be seen in figure 1, Grant shows an auxiliary input/output (46) as a thumbwheel (col. 3, lines 64-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Grant having a thumbwheel to Nishimoto's device so as to simplify inputting data.

As to claim 74, the LED input/output is broad enough that the LED would have been part of the input/output device which as well known to be existed in the QWERTY keyboard.

As to claims 87-88, directed to thumbwheel, which as can be seen above, taught by Grant. Having the thumbwheel in the side or front surface would be obvious to a person of ordinary skill in the art, based on the design of the device and the required characteristics.

9. Claim 89 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimoto in view of Lieberman et al, Hughes and Cairns (US patent NO. 5,930,703).

As can be seen above, Nishimoto as modified teach all the limitations of claim 89 except the citation of having infrared data port for wireless transmitting and receiving data with another mobile communication device.

However, Cairns (figure 4) teaches a cellular phone for communicating with other similar cellular phone using infrared wireless communication (col. 6, lines 47-65). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use infrared wireless communication in Nishimoto's phone, because wireless communication uses many types of communication technology such as radio, acoustic oriented based on the design choice. Furthermore, infrared is known for its affordability and reliability.

10. Claim 90 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimoto in view of Lieberman et al, Hughes in view of Jarrad (US patent NO. 6,047,197).

As can be seen above, Nishimoto as modified teach all the limitation of claim 90 except the citation of having a mode key to switch the device between the operation modes. However, Jarrad a phone device that includes a key mode for changing between the modes (col. 3, lines 41-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Jarrad having a toggle switch to change between modes to be incorporated to Nishimoto's device so as to facilitate the switching between the modes, which make the device user friendly.

Response to Arguments

11. Applicant's arguments with respect to claims 44-45 and 47-103 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nguyen(5,797,089) teach a mobile telephone having a keyboard.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

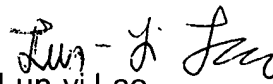
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi Lao whose telephone number is 571-272-7671. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 12, 2007


Lun-yi Lao
Primary Examiner